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U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER  
411076.90030

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

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INTERNATIONAL APPLICATION NO.  
PCT/EP 99/09636

INTERNATIONAL FILING DATE  
08 Dec 1999 (08.12.99)

PRIORITY DATE CLAIMED  
11 Dec 1998 (11.12.98)

**TITLE OF INVENTION**

Receiving Station for Satellite Television Signals

**APPLICANT(S) FOR DO/EO/US**

Guido Graef

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An unsigned oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☒ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 16. below concern document(s) or information included:**

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information: Return postcard

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <div style="font-size: 24pt; font-weight: bold;">09/762753</div>		INTERNATIONAL APPLICATION NO. PCT/EP99/09636		ATTORNEY'S DOCKET NUMBER 411076.90030	
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17. <input checked="" type="checkbox"/> The following fees are submitted: <b>BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):</b> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO ..... <b>\$1000.00</b>  International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ..... <b>\$860.00</b>  International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... <b>\$710.00</b>  International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... <b>\$690.00</b>  International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) ..... <b>\$100.00</b>  <div style="text-align: right;"><b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b></div>				<b>CALCULATIONS</b> PTO USE ONLY	
				<div style="border: 1px solid black; padding: 5px; width: 100%;"> <div style="display: flex; justify-content: space-between;"> <span>\$ 860.00</span> <span></span> </div> </div>	
Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than [ ] 20 [ ] 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				<div style="border: 1px solid black; padding: 5px; width: 100%;"> <div style="display: flex; justify-content: space-between;"> <span>\$</span> <span></span> </div> </div>	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	16       -20 =	0	X <b>\$18.00</b>	\$	
Independent claims	1       -3 =	0	X <b>\$88.00</b>	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ <b>\$270.00</b>	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	
Reduction by 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	
<b>SUBTOTAL =</b>				\$	
Processing fee of <b>\$130.00</b> for furnishing the English translation later than [ ] 20 [ ] 30 months from the earliest claimed priority date (37 CFR 1.429(f)).				+	\$
<b>TOTAL NATIONAL FEE =</b>				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property				+	\$
<b>TOTAL FEES ENCLOSED =</b>				\$ 860.00	
				Amount to be: refunded	\$
				Charged	\$

a. ☐ A check in the amount of \$       .00       to cover the above fees is enclosed.

b. ☒ Please charge my Deposit Account No. 17-0055 in the amount of \$       .00       to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 17-0055. A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

Michael J. McGovern  
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SIGNATURE  


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28,326  
 REGISTRATION NUMBER

09/762753

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Express Mail No. EF 077 944 925 US

PATENT

Docket No.411076.90030

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Graef  
Appl. No.: National Phase of PCT/EP 99/09636  
Filed: February 9, 2001  
For: RECEIVING STATION FOR SATELLITE  
TELEVISION SIGNALS

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PRELIMINARY AMENDMENT

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BOX PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please enter the following preliminary amendment in the patent application transmitted herewith prior to calculation of the filing fee.

Amendment

IN THE SPECIFICATION:

Page 1, before line 1, change "Description" to -- TECHNICAL FIELD--.

Page 1, after line 1 and before line 2, insert -- DESCRIPTION OF THE BACKGROUND ART--.

Page 1, after line 13 and before line 14, please insert the heading --SUMMARY OF THE INVENTION--.

Pg. 1, line 14, change "task" to --general object--.

Page 1, line 14, after "station" please delete "with the features stated in Claim 1. Advantageous embodiments and modifications are apparent from the dependent claims."

Page 2, before line 1, insert --BRIEF DESCRIPTION OF THE DRAWINGS--.

Page 2, after line 3, please insert the heading - DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS-.

IN THE CLAIMS:

In claim 3, line 1, delete " or 2".

In claim 4, line 1, change "one of the preceding claims" to --claim 1--.

In claim 5, line 1, change "one of the preceding claims" to --claim 1--.

In claim 7, line 1, change "one of the preceding claims" to --claim 3--.

In claim 8, line 1, change "one of the preceding claims" to --claim 1--.

In claim 9, line 1, change "one of the preceding claims" to --claim 1--.

In claim 10, line 1, change "one of the preceding claims" to --claim 1--.

In claim 12, line 1, change "one of the preceding claims" to --claim 1--.

In claim 13, line 1, change "one of the preceding claims" to --claim 1-.

In claim 15, line 1, change "one of the preceding claims" to --claim 1-.

Remarks

The last page of the translation of the specification has been amended to provide an Abstract of the Disclosure. The specification has been amended to insert headings at the proper places. The claims have been amended to remove multiple claims dependencies for purposes of calculating the filing fee.

Respectfully submitted,

By: 

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11-25-2000

International File No.:

PCT/EP/99/09636

Applicant:

Grundig AG

Title:

Satellite Television Signal Receiving Station

Page 10

## New Description Page 1a

A television set with one or more receivers or subscribers is known from EP 0 582 023 A1. The television set and the receivers or subscribers are connected to a cable, antenna and/or a cable network and/or a satellite receiver unit. This unit prepares satellite television programs and converts them to cable. The satellite receiving unit can be remotely controlled via the cable for the receiver or subscriber.

An antenna unit to receive signals of a terrestrial and an orbital transmitter with a satellite tuner arranged in the proximity of the antenna is known from DE 38 31 994 A1. A transcoder to convert the satellite signal to a standard signal and to supply it to the antenna take-off is also disclosed. Tuning of the satellite tuner, the method of operation of the transcoder and tuning of the modulator can be remotely controlled.

An arrangement for direct reception of satellite programs is disclosed in EP 0 288 928 A2. This arrangement has an external receiving station, to which a parapole antenna and a converter are connected. An internal unit is also provided, which accomplishes the functions of amplifier and signal converter. In order to make satellite signals receivable for a normal television set, the amplifier and converter are provided. The apparatus has a number of converters, which convert the converted signal to frequency bands in the UHF or VHF band.

In the figures:

- Figure 1 shows a first practical example for the invention and
- Figure 2 shows a second practical example for the invention.

In Figure 1, which shows a first practical example for the invention, a block diagram of the satellite television signal receiving station is depicted. It has an external unit 1, a satellite antenna cable 2, a first satellite receiver 3, a second satellite receiver 4, a house antenna cable 7, a house antenna 8, antenna sockets 9 and 10, a first television receiver 11, a first satellite receiver control module 16, a second television receiver 18 and a second satellite receiver control module 23, in which the house antenna cable 7 is provided for connection of the mentioned modules.

The first satellite receiver 3 has an input connection 3a, via which received and processed television signals are fed to it from the external unit 1. These are demodulated in satellite receiver 3 and remodulated by a remodulator 5 so that they come to lie in a standard TV channel that lies in the UHF or VHF range. The remodulated signals are made available at the output 3b of satellite receiver 3.

The second satellite receiver 4 has an input connection 4a, via which received and processed television signals are fed to it from the external unit 1. These are demodulated in the satellite receiver and remodulated by means of a remodulator 6 so that they come to lie in a normal TV channel that lies in the UHF or VHF range. The remodulated signals are made available at the output 4b of the satellite receiver 4.

The mentioned modules 3, 4, 5 and 6 are components of a central satellite head station, which is arranged on the roof of a block of apartments in a separate location from the mentioned television sets 11 and 18.

The two satellite receivers 3 and 4 are connected to the antenna sockets 9 and 10 via the house antenna cable 7. From the antenna socket 9 the house antenna cable 7 is conveyed to the first television set 11 and the first satellite receiver control module 16. From the antenna socket 10, the house antenna cable is conveyed to the second television set 18 and the second satellite receiver control module 23.

The first television set 11 is a microprocessor-controlled television set, which is connected to the house antenna cable 7 via an antenna connection 12. The first television set 11 also has a video signal output socket 13, especially a Euro-AV socket. This is connected via a cable 14, especially a Euro-AV cable, to a video signal input socket 15, especially a Euro-AV socket of the first satellite receiver control module 16.

In the subsequent description of the invention, the video signal input socket 15 and the video signal output socket 13 are Euro-AV sockets.

The second television set 18, which is set up in another room or residence of the apartment block, is also a microprocessor-controlled television set connected to the house antenna cable 7 via an antenna connection 19. The second television set 18 also has a Euro-AV socket 20 and is connected to Euro-AV socket 22 of the second satellite receiver control module 23 via Euro-AV cable 21.

The two television sets 11 and 18 are ordinary television sets as now available on the market. Each has a permanent transmitter memory 13a and 18a in whose memory positions data are stored by the user at the receiver location, which correspond to the tuning frequencies or corresponding division ratios for a number of desired transmitters, in which these desired transmitters are ARD, ZDF, BR3, SAT1, RTL, etc. These memory locations are assigned station key numbers so that the user can select a desired transmitter by activating a corresponding numerical key or numerical key combination of the remote control of the television set and switch the television set to a desired television channel.

The corresponding satellite receiver 3 or 4 also has a microcomputer provided for equipment control, among other things, to start a transmitter search run in the satellite receiver in reaction to a supplied control signal and to stop it again.

Since the two receiver groups 3, 11, 16 and 4, 18, 23 are arranged parallel to each other in terms of function, the method of function of the receiving station is only explained subsequently relative to receiver group 3, 11, 16.

It is assumed as starting situation that the television receiver 11 already has a programmed transmitter memory 13a in whose memory locations frequency data, channel data or corresponding division ratios are stored that correspond to the desired transmitters. These desired transmitters can then be called up by activating a numerical key or numerical key combination of the remote control.

If the television program selected by means of a numerical key is a satellite program that is received by means of the external unit 1 of the satellite television receiving station, then this reception occurs as follows:

After said activation of a numerical key of the remote control, the tuner of the television is tuned to the corresponding channel under the control of the microcomputer of the television receiver 11, in which the data required for this tuning are obtained from the transmitter memory 13a.

Since immediately after tuning of the tuner to the mentioned channel, no image signals are present from this channel, no image signals are present at the Euro-AV socket 13 of television set 11 either.

In the satellite receiver control module 16, to which the signal present at the Euro-AV socket 13 of the television set 11 is fed via the Euro-AV cable 14 and the Euro-AV socket 15, an image signal detector is provided, which recognizes whether image signals are present or not at the Euro-AV socket of the television set. For this purpose evaluation of the image content signals or synchronization signals can occur. However, an evaluation of a digital code from the image signal can also occur.

If the detector recognizes that no image signals are present, a control signal is generated in the satellite receiver control module 16, which is fed to the satellite receiver 3 via the connection 17 of the satellite receiver control module and the house antenna cable 7. This initiates a search process in satellite receiver 3, in the scope of which the satellite receiver searches in succession satellite channels for receivable transmitters.

If in this search a receivable transmitter is found in a satellite channel, the corresponding signals are demodulated in the satellite receiver 3 and then converted in re-modulator 5 to a standard TV signal, which lies in the VHF or UHF range.

The channel of the VHF or UHF range into which the demodulated signal is converted is stipulated by the transmitter memory of satellite receiver 3. Information concerning a terrestrial television channel is stored in the memory locations of this transmitter memory corresponding to satellite channel information, for example, frequency information, channel data or corresponding division ratio. This information concerning a terrestrial television channel agrees in terms of its memory location and content with the corresponding information of the transmitter memory of television set 11.

This information is used by the modulator of the satellite receiver for remodulation of the television signal so that the television signal received in a satellite channel is converted in the satellite receiver to a specific corresponding terrestrial television channel that lies in the VHF or UHF range. This signal is then fed via the house antenna cable 7, antenna socket 9 and connection 12 to the tuner of the television set 11. Since this is tuned by the aforementioned operation of the corresponding number keys at this terrestrial receiving channel, image signals are present at the tuner output and also at the Euro-AV socket 13 of television set 11. This is recognized by the detector of the satellite receiver control module 16. As a result, an additional control signal is generated in the satellite receiver control module and fed to the satellite receiver 3 via connection socket 17 and house antenna cable 7.



This additional control signal causes a search stop in the satellite receiver 3, since the desired signals are now being received by the satellite receiver.

If, on the other hand, another television signal is found during the search in the satellite receiver, which is converted by remodulation to a (different) terrestrially receiving channel to which the tuner of the television set 11 is not tuned, then no image signal is present at the Euro-AV socket 13 of the television set and the search is continued in the satellite receiver 3.

If switching of the television set 11 to another channel occurs after screen playback of a television signal taken from satellite receiver 3, then image signals again are no longer present at the Euro-AV socket 13. The satellite receiver control module 16 then again generates a search start signal for satellite receiver 3. A search for receivable signals occurs after receiving the search start signal. The received signals are demodulated in the satellite receiver and then remodulated to a corresponding terrestrial television channel. This occurs until image signals are again present at the output of the tuner in television set 11. This is again recognized by the detector in the satellite receiver control module 16 so that the satellite receiver control module 16 sends a search stop signal to the satellite receiver 3 via house antenna cable 7.

In this procedure, after selecting a television transmitter by means of the keyboard of the television set 11, waiting times can occur, since only the desired transmitter must be determined during the search in satellite receiver 3. These waiting times can be shortened by the fact that by means of the depicted installation only a limited number of satellite transmitters are to be received. This can be achieved, for example, by the fact that only German language ASTRA transmitters are received. Because of this restriction, a situation is simultaneously achieved in which the number of available terrestrial channels into which the signals are converted during remodulation in the satellite receiver is not surpassed.

The mentioned waiting times can also be reduced by the fact that an intelligent search occurs in the satellite receiver. In this case, one makes use of the fact that the program or channel tables in the satellite receiver and in the television set are adjusted to each other. If this is the case, after a program switch of the television set by means of an operating keyboard in the satellite receiver, those satellite channels that correspond to VHF or UHF channels can initially be adjusted, which can be set during program selection by activation of a "+" or a "-" key of the keyboard. Only if this search is in vain, does a search occur in the entire reception range.

During this intelligent search, one can also make use of the fact that statistics are stored in the satellite receiver from which it follows which programs are viewed most

often. These are then set first during the search after program selection. Only if this search is in vain, does a search occur over the entire reception range.

A significant advantage of the practical example depicted in Figure 1 consists of the fact that ordinary television sets can be used in the described manner to receive several satellite television signals. The only requirement is that these television sets be provided with a Euro-AV socket, via which information is fed to the satellite receiver control module connected to the television set whether a received image signal is present or not after engagement or switching of the television set to a desired program.

The choice of a television program occurs, regardless of whether a television signal taken from the terrestrial receiving antenna 8 or the external unit 1 is involved, always by means of the operating unit of the television receiver. The user therefore needs no knowledge concerning which of these antennas the signal is coming from and also does not have to switch from the terrestrial plane to the satellite plane.

Advantageously, at an appropriate position of the depicted receiver, a switch can be provided that automatically interrupts the signal path from the antenna to the television set that is not required at the moment by means of selection of a television transmitter carried out with the operating unit.

In order for the satellite receiver control module not to be disturbed by internal on-screen display generators of the television set during detection of the television signal, a digital code signal can be introduced advantageously into the UHF or VHF signal generated in the satellite receiver, for example, in the blanking intervals of the signal. Only when the presence of this code signal is detected in addition to an image signal in the satellite receiver control module is a search stop signal generated for the satellite receiver.

Preferably the television set 11 and the satellite receiver control module connected to it are coupled in terms of power supply so that during operation of the power switch both devices are switched on and off together.

It is possible in the practical example just described to receive the signals of a specific transmitter, for example, ARD, both via the terrestrial antenna 8 and via the external unit 1, which has a satellite antenna. A different or also the same station key number can then be assigned to the terrestrial reception of this transmitter as for satellite reception. If the same station key number is assigned to terrestrial reception as to satellite reception, then the desired reception can be ensured either using automatic priority determination, according to which preference is to be given to satellite reception, or by manual priority determination.

A receiving station according to the invention preferably includes several satellite receivers, several television sets and several satellite receiver control modules. In order to ensure clear coordination between the corresponding satellite receivers and the corresponding satellite receiver control modules, a module code signal is introduced into the signals transmitted by the satellite receiver control module to the satellite receiver, for example, a digitally coded sequential number.

Figure 2 concerns a second practical example for the invention and shows a block diagram of another satellite television signal receiving station.

The satellite television signal receiving station depicted in this Figure 2 largely agrees with that depicted in Figure 1. Only the differences between the two receiving stations are taken up subsequently.

In the station depicted in Figure 2, the satellite receiver control module is integrated in the television set 11, 18. The function of the satellite receiver control module is monitored in the mentioned television sets by the corresponding microcomputers 13b, 18b.

Since the mentioned microcomputers 13b, 18b have access after program selection by the keyboard to the frequency, channel or division ratio data corresponding to the selected program, which are stored in the transmitter memories 13a, 18a, in this practical example for the invention, the mentioned frequency, channel or division ratio data can be fed to the satellite receiver 3, 4. This can occur either via the house antenna cable 7, via the ac power mains present in the house or via another signal connection 25, 26 expressly prescribed for this purpose.

The satellite receiver 3, 4 with this information using its own transmitter memory can immediately draw conclusions concerning the corresponding satellite channel and make the desired satellite signal available free of delay. In this practical example, no search in the satellite receiver is required after program engagement or switching nor is any transmission of a search start and search stop signal necessary via house antenna cable 7.

The connections 12 and 19 can also be Euro-AV sockets, via which the corresponding satellite receiver control module communicates with the corresponding satellite receiver.

## New Set of Patent Claims

### 1. Satellite television signal receiving station having

a) a satellite receiver which has an input connection connectable to an external unit of the receiving station to receive television signals derived from the external unit, a modulator, which is provided to convert the television signals into the VHF or UHF range, and a house antenna connection, at which VHF or UHF signals can be tapped,

b) a television set located separated from the satellite receiver, the television set having at least one video signal output socket,

c) a house antenna cable, to which the satellite receiver and television set are connected, each of which has a house antenna connection,

characterized by the fact that

d) a satellite receiver control module connected to the television set or integrated in the television set is provided, which serves to generate control signals for the separate satellite receiver,

e) the control signals generated in the satellite receiver control module contain a search start signal for the satellite receiver and

f) the satellite receiver control module has a detector that detects engagement or switching of the television set and generates the search start signal when engagement or switching is detected.

2. Satellite television signal receiving station according to Claim 1, characterized by the fact that the video signal output socket is a Euro-AV socket.

3. Satellite television signal receiving station according to Claim 1 or 2, characterized by the fact that the control signals generated from the satellite receiver control module for the satellite receiver are transmitted via the house antenna cable, the ac power mains or a signal connection provided between the television set and the satellite receiver to the satellite receiver and that the satellite receiver is prescribed to receive control signals generated by the satellite receiver control module.

4. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that the satellite receiver control module is arranged outside of the television housing and that image signals are fed to the satellite receiver control module via the Euro-AV socket of the television set, the image signals corresponding to the image signals displayed on the screen of the television set.

5. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that the control signals generated in the satellite receiver control module contain a search stop signal for the satellite receiver.

6. Satellite television signal receiving station according to Claim 5, characterized by the fact that the satellite receiver control module has a detector, which detects the presence of an image signal and generates the search stop signal when the image signal is detected.

7. Satellite television signal receiving station according to one of the preceding Claims 3 to 6, characterized by the fact that the control signals are transmitted in the form of a 22 KHz switching signal.

8. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that the satellite receiver has the means to introduce a code signal into the television signals.

9. Satellite television signal receiving station according to Claim 8, characterized by the fact that the satellite receiver control module has a detector that detects the presence of the code signal in the television signals present at the Euro-AV socket and generates the search stop signal only when the code signal is detected.

10. Satellite television signal receiving station according to one of the Claims 1 to 3, characterized by the fact that the satellite receiver control module is arranged within the television receiver housing.

11. Satellite television signal receiving station according to Claim 10, characterized by the fact that the satellite receiver control module is the microcomputer of the television receiver.

12. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that the satellite receiver has a permanent memory, by means of which terrestrial antenna channels lying in the VHF or UHF range are assigned to each received satellite television program and that the television receiver has a transmitter memory that is provided to store frequency data, channel data or division ratios corresponding to the terrestrial receiving channels.

13. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that it has several satellite receivers, several television sets and several satellite receiver control modules.

14. Satellite television signal receiving station according to Claim 13, characterized by the fact that the control signals generated by the satellite receiver control modules are provided with a code signal for the satellite receiver control modules generating the corresponding control signal.

15. Satellite television signal receiving station according to one of the preceding claims, characterized by the fact that the television set and the satellite receiver have a common operating unit.

16. Satellite television signal receiving station according to Claim 15, characterized by the fact that channel selection for terrestrial television signal reception and satellite television signal reception occurs through the numerical keyboard of the common operating unit without requiring a switching process between terrestrial reception and satellite reception.

Abstract

The invention relates to a receiving station for satellite television signals. The inventive system comprises an external unit, satellite receivers and television units on whose display screen a signal playback ensues. A satellite receiver control module is assigned to each television receiver. Said control module is provided for generating control signals for the satellite receiver.

PCT

WELTORGANISATION FÜR GEISTIGES EIGENTUM  
Internationales Büro



INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE  
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(DE).

(81) Bestimmungsstaaten: JP, NO, US, europäisches Patent (AT,  
BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,  
MC, NL, PT, SE).

Veröffentlicht

Mit internationalem Recherchenbericht.

Vor Ablauf der für Änderungen der Ansprüche zugelassenen  
Frist; Veröffentlichung wird wiederholt falls Änderungen  
eintreffen.

(54) Title: RECEIVING STATION FOR SATELLITE TELEVISION SIGNALS

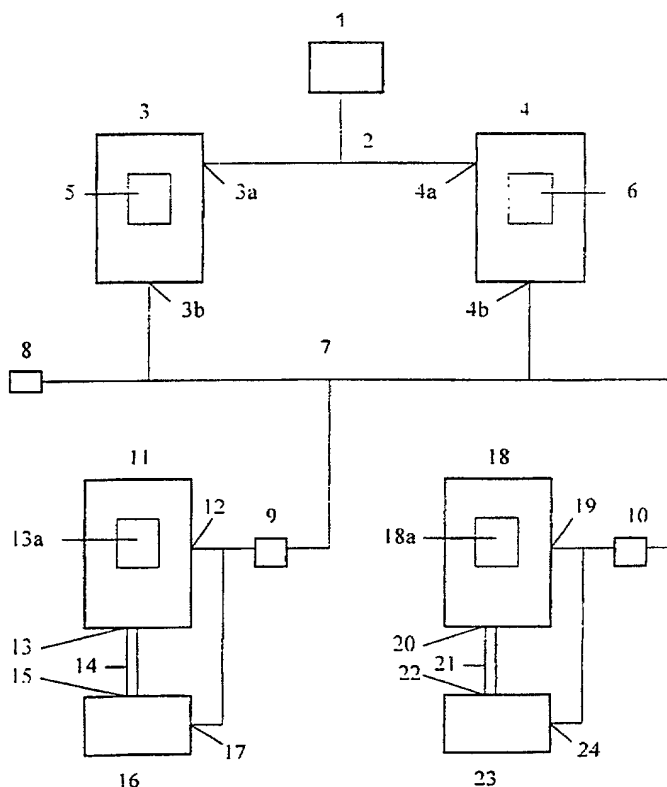
(54) Bezeichnung: SATELLITENFERNSEHSIGNAL-EMPFANGSANLAGE

(57) Abstract

The invention relates to a receiving station for satellite television signals. The inventive system comprises an external unit, satellite receivers and television units on whose display screen a signal playback ensues. A satellite receiver control module is assigned to each television receiver. Said control module is provided for generating control signals for the satellite receiver.

(57) Zusammenfassung

Die Erfindung betrifft eine Satellitenfernsehsignal-Empfangsanlage. Diese weist eine Außeneinheit, Satellitenempfänger und Fernsehgeräte auf, auf deren Bildschirm eine Signalwiedergabe erfolgt. Jedem Fernsehempfänger ist ein Satellitenempfänger-Steuermodul zugeordnet, welches zur Erzeugung von Steuersignalen für den Satellitenempfänger vorgesehen ist.





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FIG. 1

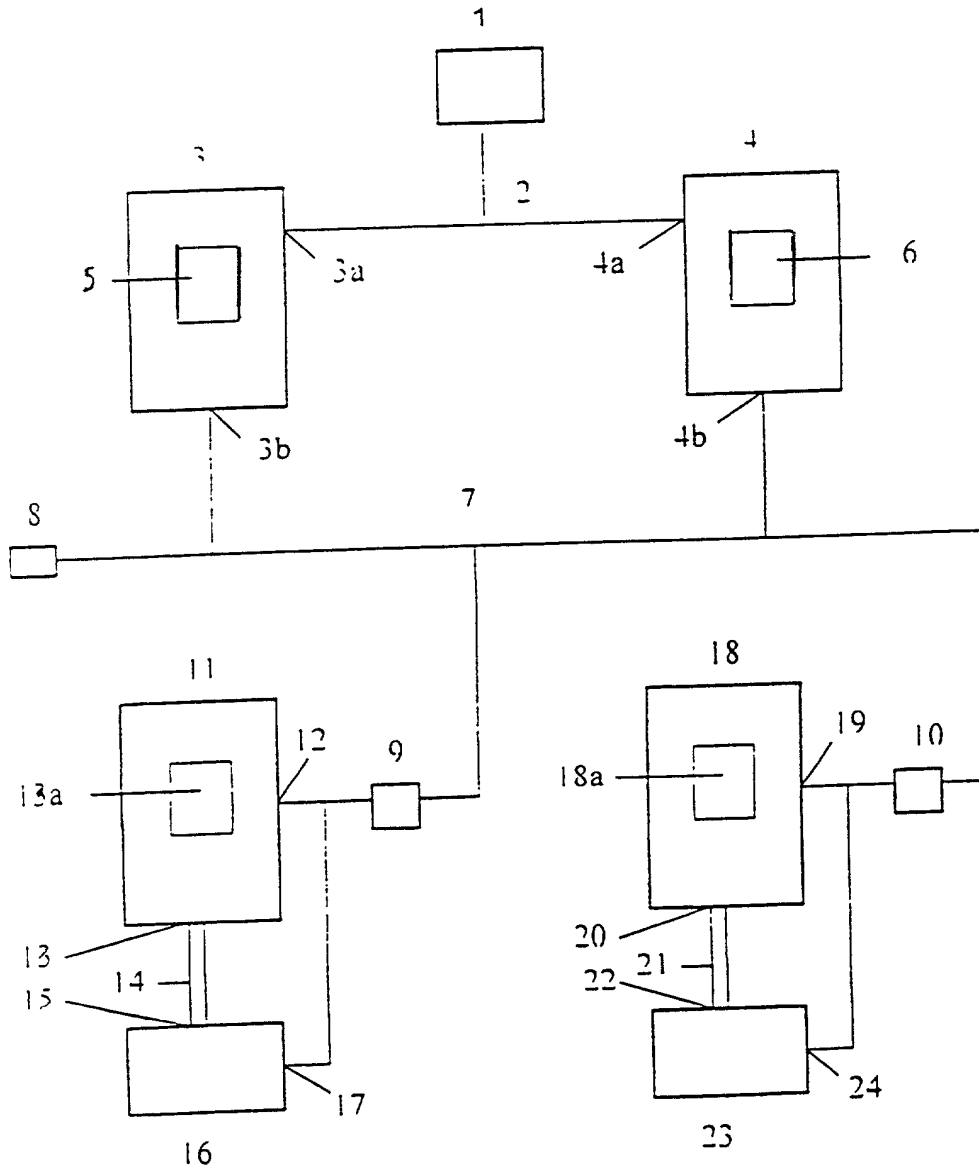
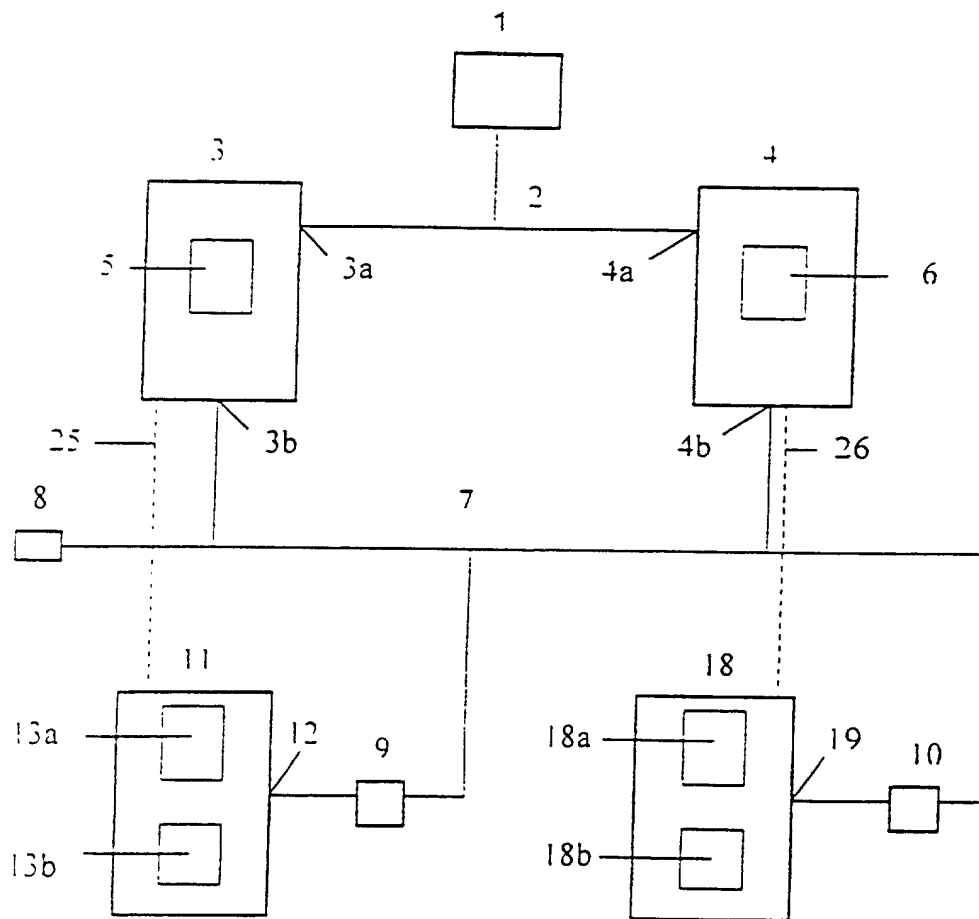


FIG. 2



## Declaration and Power of Attorney for Patent Application Erklärung für Patentanmeldungen mit Vollmacht

### German Language Declaration

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Satellitenfernsehsignal-  
Empfangsanlage

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Receiving Station For Satellite  
Television Signals

deren Beschreibung hier beigelegt ist, es sei denn (in diesem Falle Zutreffendes bitte ankreuzen), diese Erfindung

- ☒ wurde angemeldet am 8 Dez 1999  
unter der US-Anmeldenummer oder unter der  
Internationalen Anmeldenummer im Rahmen des  
Vertrags über die Zusammenarbeit auf dem Gebiet  
des Patentwesens (PCT)  
PCT/EP99/09636 und am  
\_\_\_\_\_ abgeändert (falls  
zutreffend).

the specification of which is attached hereto unless the following box is checked:

- ☒ was filed on 8 Dec 1999  
as United States Application Number or PCT  
International Application Number  
PCT/EP99/09636 and was amended on  
\_\_\_\_\_ (if applicable).

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Prior Foreign Applications  
(Frühere ausländische Anmeldungen)

198 57 241.7 Germany

(Number)  
(Nummer)

(Country)  
(Land)

(Number)  
(Nummer)

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(Land)

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(Application No.)  
(Aktenzeichen)

(Filing Date)  
(Anmeldetag)

(Application No.)  
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(Application No.)  
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(Aktenzeichen)

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Priority Not Claimed

Priorität nicht beansprucht

11 Dec 1998

(Day/Month/Year Filed)

(Tag/Monat/Jahr der Anmeldung)

(Day/Month/Year Filed)

(Tag/Monat/Jahr der Anmeldung)

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(Status) (patented, pending, abandoned)

(Status) (patentiert, schwebend, aufgegeben)

(Status) (patented, pending, abandoned)

(Status) (patentiert, schwebend, aufgegeben)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Postanschrift:

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**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number)

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Unterschrift des Erfinders: (Inventor's signature):		Datum: (Date):
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Vor- und Zuname des zweiten Miterfinders (falls zutreffend) (Full name of second joint inventor, if any)		
Unterschrift des zweiten Erfinders: (Second inventor's signature):		Datum: (Date):
Wohnsitz (Residence)		
Staatsangehörigkeit (Citizenship)		
Postanschrift: (Post Office Address):		

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